

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

1-50. (Canceled)

51. (New) A method for inhibiting proliferation in a population of cancer cells having a *ras* gene mutation which increases *RAS* activity comprising:
- (i) introducing, into one or more cell of the population, an effective amount of a first nucleic acid molecule, in expressible form, selected from the group consisting of:
- (a) a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1,
 - (b) a nucleic acid comprising a nucleic acid encoding a protein having SEQ ID NO: 2, and
 - (c) a nucleic acid that specifically hybridizes to a nucleic acid having residues 275 to 895 of SEQ ID NO: 1 under stringent hybridization conditions consisting of hybridization in 0.5 M NaHPO₄, 7% sodium dodecyl sulfate, 1 mM ethylenediamine tetraacetic acid at 65°C, and washing in 0.1x standard saline citrate/0.1% sodium dodecyl sulfate at 68°C, and that encodes a protein which inhibits proliferation of melanoma cells; and
- (ii) introducing, into one or more cell of the population, an effective amount of a second nucleic acid molecule that hybridizes under stringent conditions to a *RAS* nucleic acid molecule and that decreases *RAS* activity.

52. (New) The method of claim 51 wherein the first nucleic acid is comprised in a viral vector.
53. (New) The method of claim 52 wherein the viral vector is selected from the group consisting of an adenovirus vector, an adeno-associated virus vector, a retrovirus vector and a vaccinia virus vector.
54. (New) The method of claim 51, wherein *RAS* activity is decreased by administering an effective amount of a viral vector comprising the second nucleic acid molecule.
55. (New) The method of claim 54, wherein the viral vector is selected from the group consisting of an adenovirus vector, an adeno-associated virus vector, a retrovirus vector, and a vaccinia virus vector.
56. (New) The method of claim 51, wherein the second nucleic acid molecule is an oligonucleotide.
57. (New) The method of claim 54, wherein the viral vector further comprises a nucleic acid encoding *MDA-7* in expressible form.
58. (New) A method for inhibiting proliferation in a population of cancer cells having a *ras* gene mutation which increases *RAS* activity comprising:
- (i) introducing, into at least one cell of the population, an effective amount of a first nucleic acid molecule, in expressible form, selected from the group consisting of:
- (a) a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1,

- (b) a nucleic acid comprising a nucleic acid encoding a protein having SEQ ID NO: 2, and
 - (c) a nucleic acid that specifically hybridizes to a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1 under stringent hybridization conditions consisting of hybridization in 0.5 M NaHPO₄, 7% sodium dodecyl sulfate, 1 mM ethylenediamine tetraacetic acid at 65°C, and washing in 0.1x standard saline citrate/0.1% sodium dodecyl sulfate at 68°C, and that encodes a protein which inhibits proliferation of melanoma cells; and
 - (ii) introducing, into at least one cell of the population, an effective amount of an anti-*RAS* agent selected from the group consisting of an antisense *ras* molecule, a *ras*-specific ribozyme, and a precursor of a triple helix targeting the *ras* gene, so that *RAS* activity is decreased.
59. (New) A method for inhibiting proliferation of a cancer cell having a *ras* gene mutation which increases *RAS* activity comprising:
- (i) introducing, into the cell, a first nucleic acid molecule, in expressible form, selected from the group consisting of:
 - (a) a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1,
 - (b) a nucleic acid comprising a nucleic acid encoding a protein having SEQ ID NO: 2, and
 - (c) a nucleic acid that specifically hybridizes to a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1 under stringent

hybridization conditions consisting of hybridization in 0.5 M NaHPO₄, 7% sodium dodecyl sulfate, 1 mM ethylenediamine tetraacetic acid at 65°C, and washing in 0.1x standard saline citrate/0.1% sodium dodecyl sulfate at 68°C, and that encodes a protein which inhibits proliferation of melanoma cells; and

(ii) introducing, into the cell, an anti-*RAS* agent which is a second nucleic acid molecule that hybridizes under stringent conditions to a *RAS* nucleic acid molecule and that decreases *RAS* activity.

60. (New) The method of claim 59 wherein the first nucleic acid encoding MDA-7 protein is comprised in a viral vector.
61. (New) The method of claim 60 wherein the viral vector is selected from the group consisting of an adenovirus vector, an adeno-associated virus vector, a retrovirus vector and a vaccinia virus vector.
62. (New) The method of claim 59, wherein *RAS* activity is decreased by administering an effective amount of a viral vector comprising the second nucleic acid molecule.
63. (New) The method of claim 62, wherein the viral vector is selected from the group consisting of an adenovirus vector, an adeno-associated virus vector, a retrovirus vector, and a vaccinia virus vector.
64. (New) The method of claim 59, wherein *RAS* activity is decreased by administering an effective amount of an anti-*RAS* agent selected from the group consisting of an antisense *ras* molecule, a *ras*-specific ribozyme, and a precursor of a triple helix targeting the *ras* gene.

65. (New) The method of claim 62, wherein the viral vector further comprises the first nucleic acid molecule.
66. (New) A method for inhibiting proliferation in a population of pancreatic cancer cells having a mutated *K-ras* gene which increases *RAS* activity comprising:
- (i) introducing, into one or more cell of the population, a first nucleic acid molecule, in expressible form, selected from the group consisting of:
- (a) a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1,
 - (b) a nucleic acid comprising a nucleic acid encoding a protein having SEQ ID NO: 2, and
 - (c) a nucleic acid that specifically hybridizes to a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1 under stringent hybridization conditions consisting of hybridization in 0.5 M NaHPO₄, 7% sodium dodecyl sulfate, 1 mM ethylenediamine tetraacetic acid at 65°C, and washing in 0.1x standard saline citrate/0.1% sodium dodecyl sulfate at 68°C, and that encodes a protein which inhibits proliferation of melanoma cells; and
- (ii) introducing, into one or more cell of the population, an anti-*RAS* agent which is a second nucleic acid molecule that hybridizes under stringent conditions to a *RAS* nucleic acid molecule and that decreases *RAS* activity.
67. (New) The method of claim 66 wherein the first nucleic acid is comprised in a viral vector.

68. (New) The method of claim 67 wherein the viral vector is selected from the group consisting of an adenovirus vector, an adeno-associated virus vector, a retrovirus vector, and a vaccinia virus vector.
69. (New) The method of claim 66, wherein *RAS* activity is decreased by administering an effective amount of a viral vector comprising the second nucleic acid molecule.
70. (New) The method of claim 69, wherein the viral vector is selected from the group consisting of an adenovirus vector, an adeno-associated virus vector, a retrovirus vector, and a vaccinia virus vector.
71. (New) The method of claim 66, wherein the second nucleic acid is an oligonucleotide.
72. (New) The method of claim 69, wherein the viral vector further comprises the first nucleic acid molecule.
73. (New) A method for inhibiting proliferation of a pancreatic cancer cell having a mutated *K-ras* gene which increases *RAS* activity comprising:
- (i) introducing, into the cell, a first nucleic acid molecule, in expressible form, selected from the group consisting of:
- (a) a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1, and
 - (b) a nucleic acid comprising a nucleic acid encoding a protein having SEQ ID NO: 2, and
 - (c) a nucleic acid that specifically hybridizes to a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1 under stringent

hybridization conditions consisting of hybridization in 0.5 M NaHPO₄, 7% sodium dodecyl sulfate, 1 mM ethylenediamine tetraacetic acid at 65°C, and washing in 0.1x standard saline citrate/0.1% sodium dodecyl sulfate at 68°C, and that encodes a protein which inhibits proliferation of melanoma cells; and

(ii) introducing, into the cell, an anti-*RAS* agent which is a second nucleic acid molecule that hybridizes under stringent conditions to a *RAS* nucleic acid molecule and that decreases *RAS* activity.

74. (New) The method of claim 73 wherein the first nucleic acid molecule is comprised in a viral vector.
75. (New) The method of claim 74 wherein the viral vector is selected from the group consisting of an adenovirus vector, an adeno-associated virus vector, a retrovirus vector and a vaccinia virus vector.
76. (New) The method of claim 73, wherein *RAS* activity is decreased by administering an effective amount of a viral vector comprising the second nucleic acid molecule.
77. (New) The method of claim 76, wherein the viral vector is selected from the group consisting of an adenovirus vector, an adeno-associated virus vector, a retrovirus vector, and a vaccinia virus vector.
78. (New) The method of claim 73, wherein *RAS* activity is decreased by administering an effective amount of an anti-*RAS* agent selected from the group consisting of an antisense *ras* molecule, a *ras*-specific ribozyme, and a precursor of a triple helix targeting the *ras* gene.

79. (New) The method of claim 76, wherein the viral vector further comprises the first nucleic acid molecule.
80. (New) A method for treating a subject having pancreatic cancer associated with increased *RAS* activity, comprising administering, to the subject, an effective amount of a first nucleic acid, operatively linked to a promoter element, selected from the group consisting of:
- (a) a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1, and
 - (b) a nucleic acid comprising a nucleic acid encoding a protein having SEQ ID NO: 2, and
 - (c) a nucleic acid that specifically hybridizes to a nucleic acid comprising nucleotide residues 275 to 895 of SEQ ID NO: 1 under stringent hybridization conditions consisting of hybridization in 0.5 M NaHPO₄, 7% sodium dodecyl sulfate, 1 mM ethylenediamine tetraacetic acid at 65°C, and washing in 0.1x standard saline citrate/0.1% sodium dodecyl sulfate at 68°C, and that encodes a protein which inhibits the proliferation of melanoma cells; and
- an anti-*RAS* agent which is a second nucleic acid molecule that hybridizes under stringent conditions to a *RAS* nucleic acid molecule and that decreases *RAS* activity.
81. (New) A method of treating a subject having pancreatic cancer associated with a *ras* mutation causing increased *RAS* activity, comprising administering, to the subject (a) a viral vector comprising a nucleic acid encoding a protein having

SEQ ID NO: 2, in expressible form, and (b) an antisense *ras* oligonucleotide, in amounts which are effective, in combination, in (i) increasing the amount of the differentiation associated protein, *MDA-7* and (ii) decreasing *RAS* activity in cells of the pancreatic cancer.